

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

Date of Report: 12/17/10

Date Received: 12/16/10

Project: % of Acid M126852, F&BI 012200

Date Analyzed: 12/17/10

**RESULTS FROM THE ANALYSIS OF AQUEOUS SAMPLES  
FOR SPECIFIC GRAVITY  
@ 15.56 °C**

Sample ID

Laboratory ID

Specific Gravity

M126852A Large  
012200-01

1.25

M126852B Small  
012200-02

1.22

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Project: % of Acid M126852, F&BI 012200  
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**RESULTS FROM THE ANALYSIS OF AQUEOUS SAMPLES  
FOR PERCENT ACID**

<u>Sample ID</u> Laboratory ID	<u>Percent Acid</u>
M126852A Large 012200-01	9
M126852B Small 012200-02	8

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**ENVIRONMENTAL CHEMISTS**

Date of Report: 12/17/10

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Project: % of Acid M126852, F&BI 012200

**QUALITY ASSURANCE RESULTS  
FOR THE ANALYSIS OF AQUEOUS SAMPLES  
FOR SPECIFIC GRAVITY  
@ 15.56 °C**

Laboratory Code: 012200-01 (Duplicate)

Analyte	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Specific Gravity	1.25	1.26	1	0-2

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Project: % of Acid M126852, F&BI 012200

**QUALITY ASSURANCE RESULTS  
FROM THE ANALYSIS OF AQUEOUS SAMPLES  
FOR PERCENT ACID**

Laboratory Code 012202-01 (Duplicate)

Analyte	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Percent Acid	9	9	0	0-20

## FRIEDMAN & BRUYA, INC.

### ENVIRONMENTAL CHEMISTS

#### Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 - More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr - The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

NP ~~012200~~ 012200  
 Send Report To General Thompson  
 Company ALASKA Copper works  
 Address 628 S. Harbor  
 City, State, ZIP Seattle WA 98134  
 Phone # 206-571-6083 Fax # 206-372-4309

## SAMPLE CHAIN OF CUSTODY

ME 12/16/10

AT4

SAMPLES (signature) <u>[Signature]</u>		Page # _____ of _____
PROJECT NAME/NO. <u>% of Acid</u>		PO # <u>M126852</u>
REMARKS -		TURNAROUND TIME <input type="checkbox"/> Standard (2 Weeks) <input checked="" type="checkbox"/> RUSH <u>24 hrs</u> Rush charges authorized by: _____  SAMPLE DISPOSAL <input type="checkbox"/> Dispose after 30 days <input type="checkbox"/> Return samples <input type="checkbox"/> Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED										Notes
						TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	% of Acid	Spec. Cleaning			
M126852A LARGE	01	12/16/10	12:30pm	HNO3	1							X	X			
M126852B Small	02	12/16/10	12:30pm	HNO3	1							X	X			

Friedman & Bruya, Inc.  
3012 16th Avenue West

Seattle, WA 98119-  
2000  
Ph. (206) 285-8282

Fax (206) 283-5044

FORM 8000\000\000.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	<u>General Thompson</u>	<u>ACW</u>	<u>12/16/10</u>	<u>2:16pm</u>
Received by: <u>[Signature]</u>	<u>Nhan Phan</u>	<u>FBI</u>	<u>12/16/10</u>	<u>✓</u>
Relinquished by:				
Received by:				

Samples received at 22 °C

FRIEDMAN & BRUYA, INC.

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.  
Charlene Morrow, M.S.  
Yelena Aravkina, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

December 17, 2010

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on December 16, 2010 from the % of Acid M126852, F&BI 012200 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl  
Project Manager

Enclosures  
ACU1217R.DOC